**Worksheet 2.1B- Categorical Variables Practice**

A 4-year study reported in *The New York Times*, on men more than 70 years old analyzed blood cholesterol and noted how many men with different cholesterol levels suffered nonfatal or fatal heart attacks.

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| --- | --- | --- | --- | --- |
|  | **Low cholesterol** | **Medium cholesterol** | **High cholesterol** | total |
| **Nonfatal heart attacks** | **29** | **17** | **18** | 64 |
| **Fatal heart attacks** | **19** | **20** | **9** | 48 |
| total | 48 | 37 | 27 | 112 |

1. Calculate the marginal distribution for cholesterol level and make a bar graph.
2. Calculate the marginal distribution for severity of heart attack and make a bar graph.
3. What percent of men had low cholesterol?
4. What percent of men had fatal heart attacks?
5. What percent of those with non-fatal heart attacks had low cholesterol?
6. What percent of those with medium cholesterol had fatal heart attacks?
7. What percent of those with fatal heart attacks had high cholesterol?
8. If we know someone had low cholesterol, what is the chance they had a non-fatal heart attack?
9. What percent of the men had non-fatal heart attacks and medium cholesterol?
10. What percent of men had fatal heart attacks and high cholesterol?
11. What percent of men had fatal heart attacks or low cholesterol?
12. What percent of men had non-fatal heart attacks or medium cholesterol?

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